

April 30, 2003

MEMORANDUM

To: Ms. Dianne Chinnes, Chairman, and Members, Committee on Academic Affairs and Licensing

From: Dr. Gail M. Morrison, Deputy Executive Director, and Director of Academic Affairs and Licensing

Consideration of Centers of Excellence Grants, FY 2003-04

Background

Requests for Proposals for Centers of Excellence for the FY 2003-04 project year were issued to all eligible public and private institutions in October 2002. Three proposals were received for consideration:

- ❖ University of South Carolina-Columbia: Center of Excellence for Engineering and Computing Technology
- ❖ Coastal Carolina University: Center of Excellence for Middle Level Teacher Preparation
- ❖ University of South Carolina-Aiken: Center of Excellence for the Advancement of Rural, Under-Performing Schools (CEARUPS)

A Review Panel consisting of one out-of-state consultant, the Executive Director of the Education Oversight Committee, a retired principal from Orangeburg School District Five, a representative from higher education, and staff from the Department of Education and the Commission on Higher Education was appointed to review the proposals and to make recommendations. The Panel was chaired by Dr. Ronald Joekel, a professor from the University of Nebraska-Lincoln. The final report of the Review Panel has not yet been received. We will forward it to you under separate cover. Abstracts for all three proposed Centers are attached (**Attachment 1**).

Discussion

The Review Panel met on April 14, 2003, to conduct one-hour interviews with representatives from each institution and discuss the merits of each proposed center. The panel's recommendation is to fund the proposed centers from the University of South Carolina-Columbia and the University of South Carolina-Aiken. Coastal Carolina is also recommended for funding,

if sufficient funds are available and requested changes are made to the proposal. The panel members conducted a lengthy discussion about the proposals and concluded that the proposed centers from USC-Columbia and USC-Aiken rated the highest in the panel's discussion. Coastal Carolina's proposed program addresses a very important need in the State but there are additional matters that needed to be fully addressed before funding can be awarded. In addition, although the Commission's request for an appropriation increase has been approved by the House, the Senate has not approved a funding increase. Without the increase, only two Centers can be funded in FY 2003-04. The final appropriation by the General Assembly will be decided in Conference Committee at the end of the legislative session. The panel has requested that staff forward to Coastal Carolina the request for additional information. If Coastal Carolina can adequately address the questions and if there are sufficient funds, then this proposal should also be funded.

The amount of the award for the first year for each new center is:

❖ Center of Excellence for Engineering and Computing Education University of South Carolina-Columbia	\$150,000
❖ Center of Excellence for the Advancement of Rural, Under-Performing Schools University of South Carolina-Aiken	\$150,732
❖ Center of Excellence for Middle Level Teacher Preparation Coastal Carolina University	\$ 77,545

Recommendation

The staff suggests that the Committee accept the Review Panel's recommendation and recommend to the Commission approval of awards to: 1) USC-Columbia to establish the Center of Excellence for Engineering and Computing Education in the amount of \$150,000 and 2) USC-Aiken to establish the Center of Excellence for the Advancement of Rural, Under-Performing Schools in the amount of \$150,732. The staff further suggests that the Committee accept the Review Panel's recommendation and recommend to the Commission that Coastal Carolina University be awarded the Center of Excellence for Middle Level Teacher Education if funding is available and that the staff, working in consultation with the Review Panel Chair, determine that the questions raised by the panel have been sufficiently addressed.

Cc: Center of Excellence Review Panel

Attachments: Center Proposal Abstracts

Attachment 1

University of South Carolina-Columbia **Center for Engineering and Computing Education**

The mission of the University of South Carolina's Center for Engineering and Computing Education is to enhance engineering and computer science –related education in K-12. The approach is to develop and offer informal and formal professional development programs for teachers that help them to use engineering examples, design approaches and problem solving techniques to increase their students' interest in science and mathematics and thereby positively affect the retention of their students' content knowledge.

The targeted audience is teachers in grades 3-8 that are situated in poor performing schools in the State of South Carolina. This group is targeted because it is during these grades when most young people are either turned-on, or turned-off, to science and mathematics. Too often, science and math are viewed by the students as facts and figures to memorize, with little significance to the world around them. Engineering is the art of applying scientific and mathematical principles, experience and judgment to make things that benefit people. Engineering can provide the applications that make science real to the novice learner.

The Center's programs include Graduate Teaching Fellows in K-12 Education Program, a Summer Institute for Teachers Program, and a Research Experience for Teachers Program.

The *Graduate Teaching Fellows in K-12 Education Program* will provide direct assistance to teachers in the classrooms over extended periods of time. Engineering and computer science graduate students will help Teacher Partners to adopt, adapt and develop state-of-the-art learning materials that situate science learning in engineering design, problem solving and other experiential learning activities. Teachers engaged in these activities will come primarily from high-needs schools in Richland School District 1.

The *Summer Institute for Teachers* Program will be taught by the graduate students who have worked with teachers throughout the year, and by the project director. The Institute will disseminate the best practices and lesson plans that were implemented during the school year by the Fellows and their Teacher Partners. The Institute will target teachers from high-needs schools across the State.

The Center will also seek funding for a *Research Experience for Teachers Program* that will engage teachers from high-needs schools across the State in summer research programs at the USC-Columbia campus. Teachers will be paired with engineering and computer science researchers from across the College during the summer and conduct real research. Participating teachers will gain confidence in tackling open-ended problems with the goal of enabling them to use more student-centered learning techniques in the classroom such as teaming, cooperative learning, and inquiry.

In addition to the programs outlined above, a yearly Seed Grant Program is proposed that will bring new ideas and new faculty from the College of Engineering and Information Technology and the College of Education into the constituency of the Center. Center activities will also be guided by an educational research agenda and program evaluation plan.

The Center will be housed in the College of Engineering and Information Technology but will be managed collaboratively by faculty and staff in this College and the College of Education. The Center Director, Dr. Jed Lyons, has 13 years of experience in managing engineering education programs and organizations at local and national levels. The Center for engineering and Computing Education will be unique in the State of South Carolina in terms of its focus and content resources. The long-term benefits to the State include the enhanced development of a technologically-literate population and workforce in South Carolina.

University of South Carolina-Aiken
Center of Excellence for the Advancement of Rural, Under-Performing Schools
(CEARUPS)

Project Purpose: To become a leader and model in the development, implementation, and assessment of professional development schools established in a rural, under-performing schools.

Project Objectives

1. To improve P-12 student achievement.
2. To improve pre-service teacher preparation.
3. To improve in-service teacher classroom performance
4. To improve teacher retention.
5. To improve pre-service teacher retention
6. To document the process and stages of development in establishing a PDS in a rural, underperforming school.

Project Activities: USC Aiken, Allendale County Schools and Allendale Elementary Schools will form a PDS partnership that through the intended PDS activities, improved student achievement will result. In NCATE's *Standards for Professional Development Schools* five standards with 21 elements are identified: Standard I- Learning Community, Standard II-Accountability and Quality Assurance, Standard III-Collaboration, Standard IV-Diversity and Equity, Standard V: Structures, Resources, and Roles. With the 5 standards and 21 elements, there are four stages of development: beginning, developing, at standard and leading. The partnership will be established using these standards as benchmarks.

The Center will eventually have 3 staff members, a director and two full-time faculty, whose job it will be to develop the partnership and through collaboration with Allendale County Schools, develop, implement and assess a strategic plan that will change classroom instruction and improve student achievement. Through the partnership, USCA will teach its methods, practica, and internships for its elementary education program on-site at Allendale Elementary School. This programmatic change will also increase the number of hours of pre-internship experience by teacher candidates from 100 hours, to 200 hours. As part of the strategic plan, Center staff will also provide professional development assistance to teachers through courses, study groups, and peer observations. Additionally, USCA will modify its M.Ed. in Elementary Education so that the program can be delivered on-site through direct instruction and distance education. An annual conference focusing on PDS partnerships and reducing the achievement gap will be hosted by the Center. Finally, an assessment system will be designed to help evaluate the effectiveness of the PDS on meeting the objectives listed above.

Target Population: The target audience is Allendale Elementary School, a rural, under-performing school that has 686 students (95% African American), and 37 teachers. The school has averaged 30% turnover of teachers the past 3 years. In addition to the school, the 156 candidates in the USCA elementary education program offered at USC Salkehatchie will be targeted. Through the PDS, teacher preparation will be improved.

Expected Outcomes: See objectives listed above.

School and/or District Partners: Allendale County Schools, Allendale Elementary School.

Coastal Carolina University
Center of Excellence for Middle Level Teacher Preparation

The purpose of this Center is to provide middle school pre-service and in-service teachers the programs that they will need to become “highly qualified” teachers. As Coastal Carolina University prepares to implement our middle school undergraduate program, the Center will develop and provide in-service professional development programs for teachers in the surrounding counties. Some standards-based content area graduate and undergraduate courses for middle school have been developed and taught through previous grants. We intend to develop and provide additional courses for both pre-service and in-service teachers in order for them to become “highly qualified” in their teaching areas.

The teachers in the Pee Dee Educational Consortium, which includes Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, and Williamsburg counties, together with Georgetown County, will be targeted for this project. Districts in these counties are listed as High Needs School Districts. Teachers in Low Performing/High Needs schools in Horry County will also be included. Many of the middle school teachers in these districts are elementary certified and need additional content courses to fulfill the requirements stipulated in the No Child Left Behind legislation. The major focus of this Center is to provide content courses for these teachers. At the same time, we will be implementing our new middle school undergraduate degree and determining if our content courses are providing the materials that our pre-service teachers need to succeed. In both the pre-service and in-service programs, the emphasis will be in providing the standards-based content that the teachers need to better prepare their students.

Because of the distances involved in reaching some of these districts, the courses will be offered through a combination of distance learning and traditional instruction. The content courses will be designed and taught through a collaborative effort involving faculty from the Colleges of Education and Arts and Sciences. Standards-based content courses will be offered in Language Arts, Social Studies, Science, and Mathematics.

It is expected that the teachers participating in these programs will be better prepared to teach middle school content and that the middle school students in their classes will find greater success as a result of their teacher’s increased knowledge. The teachers will be evaluated through various assessment techniques in each course they take and by the scores they receive on the PRAXIS II content area exam. Their students will be evaluated by their PACT results. The programs and the course syllabi will be available for use by other universities and colleges throughout the state.

Attachment A

Center of Excellence Review Panel Members FY 2003-04	
Dr. Ronald Joekel College of Education University of Nebraska-Lincoln	Dr. Christine Finnan School of Education College of Charleston
Ms. Brenda Boykin Division of School Quality S.C. Department of Education	Dr. JoAnne Anderson Executive Director Education Oversight Committee
Dr. Lynn Kelly Division of Academic Affairs and Licensing S.C. Commission on Higher Education	Mr. Jeb Runager Retired Principal Orangeburg School District Five